HW: check:

2) $\frac{3x}{8y} \cdot \frac{12y^2}{9} = \frac{xy}{2}$

4) $\frac{2(2-x)}{4-2x} \cdot \frac{x+2}{x^2-4} = \frac{-1}{1} = -1$

6) $\frac{x-2}{3x+3} \div \frac{x^2+2x}{x+2}$

$\frac{x-2}{3x+3} \cdot \frac{x+2}{x^2+2x} = \frac{x-2}{3(x+1)(x)} = \frac{x-2}{3x^2+3x}$

8)

$$\frac{a}{b} \cdot \frac{b(a+b)}{ab+b^2} = \frac{a}{a^2-ab} = \frac{a(a-b)}{a-b} = \frac{a+b}{a-b}$$

$$\frac{2+4}{2-4} = \frac{6}{-2} = -3$$

10) $\dfrac{(w+8)\cancel{(w-3)}}{w^2+5w-24} \cdot \dfrac{(w+10)\cancel{(w-4)}}{w^2+6w-40} = \dfrac{(w+8)(w+10)}{(w+4)(w+7)}$

$w^2-16 = \cancel{(w-4)}(w+4)$

$w^2+4w-21 = (w+7)\cancel{(w-3)}$

12) $\dfrac{\cancel{(x+1)}(x+1)}{x^2-6x+9} \cdot \dfrac{\cancel{x-3}}{3x+3} = \dfrac{x+1}{3(x-3)}$

$x^2-6x+9 = (x-3)\cancel{(x-3)}$

$3x+3 = 3\cancel{(x+1)}$

$$\frac{1}{-2}$$

$$\frac{w^2+1}{w^2-2}$$

$$\frac{2^2+1}{2^2-2}=\frac{5}{2}$$